AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

Claim 1 (Previously Presented): An antenna for interrogating radio frequency identification (RFID) tags having a maximum dimension M, the antenna comprising a plurality of conductive loops to produce an electromagnetic field for RFID communication with the RFID tags, wherein the conductive loops are spaced apart at least a distance D, wherein $D \geq M$.

Claims 2–3 (Canceled).

Claim 4 (Original): The antenna of claim 1, wherein $D \geq 2.54$ cm.

Claim 5 (Original): The antenna of claim 1, wherein $D \geq 5.08$ cm.

Claim 6 (Original): The antenna of claim 1, wherein the plurality of conductive loops form a dual-loop structure having an inner loop and an outer loop.

Claim 7 (Original): The antenna of claim 1, wherein the plurality of conductive loops are electrically coupled so that a common current flows through the loops.

Claim 8 (Original): The antenna of claim 7, wherein the plurality of conductive loops are located in parallel planes and formed with concentric traces, and the plurality of conductive loops are electrically coupled so that the common current flows through the loops in the same direction.

Claim 9 (Original): The antenna of claim 1, wherein the plurality of conductive loops are formed in a single printed circuit board.

Claim 10 (Original): The antenna of claim 1, further comprising a tuning circuit for tuning the plurality of loops to a single operating frequency.

Claim 11 (Original): The antenna of claim 10, wherein the tuning circuit tunes the plurality of antennas to the operating frequency of approximately 13.56 megahertz (MHz).

Claim 12 (Previously Presented): A radio frequency identification (RFID) system comprising:

an RFID tag associated with an article, wherein the RFID tag has a maximum dimension M; and

an antenna having a plurality of conductive loops to produce an electromagnetic field for communication with the RFID tag, wherein the conductive loops are spaced at least a distance D, wherein $D \geq M$.

Claim 13 (Original): The RFID system of claim 12, further comprising:

an RFID interrogation device coupled to the antenna, wherein the interrogation device interrogates the RFID tag to obtain information regarding the article; and

a computing device to process the information retrieved from the RFID interrogation device.

Claim 14 (Original): The RFID system of claim 12, wherein the plurality of conductive loops are electrically coupled so that the interrogation device drives a common current through the loops.

Claim 15 (Original): The RFID system of claim 14, wherein the plurality of conductive loops are formed with concentric traces, and the plurality of conductive loops are electrically coupled so that the common current flows through the loops in the same direction.

Claims 16–17 (Canceled).

Claim 18 (Previously Presented):The RFID system of claim 12, wherein $D \geq 2.54$ cm.

Claim 19 (Previously Presented):The RFID system of claim 12, wherein $D \geq 5.08$ cm.

Claim 20 (Original): The RFID system of claim 12, wherein the plurality of conductive loops form a dual-loop structure having an inner loop and an outer loop.

Claim 21 (Original): The RFID system of claim 12, wherein the antenna has a substantially planar form.

Claim 22 (Currently Amended): ~~An~~ radio frequency identification (RFID) system comprising:

an RFID tag associated with an article, wherein the RFID tag has a dimension M;

an antenna ~~having~~ for interrogating RFID tags having a maximum dimension M, the antenna comprising a plurality of conductive loops to produce an electromagnetic field for RFID communication with the RFID tag, wherein the antenna has a substantially planar form, and wherein the conductive loops are spaced apart at least a distance D, wherein $D \geq M$; and

a substantially-contiguous conductive shield positioned around the antenna and within a plane parallel to the antenna.

Claim 23 (Previously Presented): The RFID system of claim 22, wherein the conductive shield shapes the electromagnetic field to extend substantially in a direction perpendicular to the antenna, and prevents the electromagnetic field from forming substantially over the conductive shield.

Claim 24 (Original): The RFID system of claim 23, wherein the conductive shield comprises planar conductive regions oriented to form a non-shielded inner region, and further wherein the antenna is disposed within the non-shielded inner region and parallel to the planar conductive regions.

Claim 25 (Previously Presented): The antenna of claim 1, wherein the conductive loops are substantially coplanar and the distance D represents the distance between the conductive loops within a plane.

Claim 26 (Previously Presented): A method comprising:

determining a maximum dimension M of a radio frequency identification (RFID) tag for use within a radio frequency identification (RFID) system;

selecting a distance D based on the dimension M; and

positioning a plurality of conductive loops of an antenna the selected distance D apart for communication with the RFID tag within the RFID system.

Claim 27 (Canceled).

Claim 28 (Previously Presented): The method of claim 26, wherein $D \geq M$.

Claim 29 (Previously Presented): The method of claim 26, further comprising electrically coupling the plurality of conductive loops so that a common current flows through the loops.

Claim 30 (Previously Presented): The method of claim 29,

wherein the plurality of conductive loops are located in parallel planes and formed with concentric traces, and

wherein electrically coupling the plurality of conductive loops comprises electrically coupling the plurality of conductive loops so that the common current flows through the loops in the same direction.

Claim 31 (Previously Presented): The method of claim 26, further comprising forming the conductive loops in a single printed circuit board.

Claim 32 (Previously Presented): The method of claim 26, further comprising tuning the plurality of loops to a single operating frequency using a tuning circuit.

Claim 33 (Previously Presented): The method of claim 26, wherein positioning the conductive loops comprises positioning the loops substantially coplanar, and wherein the distance D represents the distance between the conductive loops within a plane.

Claim 34 (Previously Presented): The method of claim 26, further comprising positioning a substantially-contiguous conductive shield around the antenna and within a plane parallel to the antenna.

Claim 35 (Previously Presented): The method of claim 34, further comprising:

shaping the electromagnetic field to extend substantially in a direction perpendicular to the antenna; and

preventing the electromagnetic field from forming substantially over the conductive shield.